

~~Subj. to
E7 cont.~~
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~~Subj.~~
~~Corr.~~
papillomavirus, with the exception of the specific combination of DNA sequence coding for the E7 early polypeptide and of DNA sequence coding for the L2 late polypeptide of human papillomavirus; said DNA sequences being placed under the control of the elements necessary for their expression in a host cell or organism.

33. (New) The composition of claim 32, wherein said recombinant vector is a viral vector selected from the group consisting of poxviral, adenoviral, retroviral, herpes viral and adeno-associated viral vectors.

34. (New) The composition of claim 33, wherein said recombinant vector is selected from the group consisting of vaccinia, canarypox and fowlpox viral vectors.

35. (New) The composition of claim 34, wherein said recombinant vector is selected from the group consisting of Copenhagen, Wyeth and modified Ankara (MVA) strains.

36. (New) The composition of claim 34, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

37. (New) The composition of claim 35, wherein said recombinant vector is a

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Copenhagen strain and wherein said DNA sequences are inserted into the TK locus and/or the K1L locus of said viral vector.

Sub. 61
K1
Sub. 1
38. (New) The composition of claim 35, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Sub. 61
39. (New) The composition of claim 32, wherein said early polypeptide is selected from a native, a chimeric or a variant papillomavirus E6 and/or E7 polypeptide of a papillomavirus.

Sub. 61
E6
Sub. F4
40. (New) The composition of claim 39, wherein said early polypeptide is a nononcogenic E6 and/or E7 polypeptide of a papillomavirus.

Sub. 61
41. (New) The composition of claim 32, wherein said late polypeptide is selected from a native, a chimeric or a variant papillomavirus L1 and/or L2 polypeptide of a papillomavirus.

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42. (New) The composition of claim 32, wherein said DNA sequences encode the early E6 and E7 polypeptide and the late polypeptide L1 and L2 polypeptide of a papillomavirus.

43. (New) The composition of claim 32, further comprising a pharmaceutically acceptable carrier.

44. (New) The composition of claim 32 further comprising one or more recombinant vectors into which are inserted DNA sequences coding for at least one polypeptide having an immunostimulatory activity wherein said DNA sequences are placed under the control of the elements necessary for their expression in a host cell or organism.

45. (New) The composition of claim 44, wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukine-2, interleukine-7, interleukine-12, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2.

46. (New) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is interleukine-2.

47. (New) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is the co-adhesion molecule B7.1.

48. (New) The composition of claim 44, comprising one or more recombinant vectors into which are inserted :

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Sub-FB

Cera.

Sub
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~~Sub~~

(a) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for the co-adhesion molecule B7.1, or

(b) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for interleukine-2, or

(c) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus, a DNA sequence coding for the co-adhesion molecule B7.1 and a DNA sequence coding for interleukine-2.

49. (New) The composition of claim 48, wherein said E6 and E7 polypeptide are, respectively, nononcogenic E6 and E7 polypeptides of a human papillomavirus.

50. (New) The composition of claim 49, wherein said nononcogenic E6

Sub-F-6
polypeptide is a HPV-16 E6 polypeptide deleted of amino acids 111- 115.

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Sub E7
Ex Com
51. (New) The composition of claim 49, wherein said nononcogenic E7

polypeptide is a HPV-16 E7 polypeptide deleted of amino acids 21-26.

n.
52. (New) The composition of claim 44, further comprising in a

pharmaceutically acceptable carrier.

Sub H1
Sub E7
53. (New) A method for the treatment or prevention of dysplasia or cancer of the

neck of the uterus, comprising administering an effective amount of the composition of

claim 43 to a patient in need of such treatment,

54. (New) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 43 to a patient in need of such treatment.

55. (New) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 52 to a patient in need of such treatment.

56. (New) A method for the treatment or prevention of a papillomavirus

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infection, comprising administering an effective amount of the composition of claim 52 to a patient in need of such treatment.
